



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>6</sup>:</b> <b>E21B 43/02, C09K 7/02</b>	<b>A1</b>	<b>(11) International Publication Number:</b> <b>WO 99/49183</b> <b>(43) International Publication Date:</b> 30 September 1999 (30.09.99)
<b>(21) International Application Number:</b> PCT/GB99/00737 <b>(22) International Filing Date:</b> 22 March 1999 (22.03.99) <b>(30) Priority Data:</b> 9805880.3                      20 March 1998 (20.03.98)                      GB <b>(71) Applicant (for all designated States except CA FR US):</b> SOF- ITECH N.V. [BE/BE]; 140, rue de Stalle, B-1180 Brussels (BE). <b>(71) Applicant (for FR only):</b> COMPAGNIE DES SERVICES DOWELL SCHLUMBERGER S.A. [FR/FR]; 50, avenue Jean Jaures, F-92541 Montrouge (FR). <b>(71) Applicant (for CA only):</b> SCHLUMBERGER CANADA LIM- ITED [CA/CA]; 24th floor, Monenco Place, 801 6th Avenue, S.W., Calgary, Alberta T2P 3W2 (CA). <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> JONES, Timothy, Gareth, John [GB/GB]; 242 High Street, Cottenham, Cambridge CB4 8RZ (GB). TUSTIN, Gary, John [GB/GB]; 8 Carrick Close, Cambridge CB1 8RQ (GB).		<b>(74) Agent:</b> MIRZA, Akram, Karim; Schlumberger Cambridge Research Limited, High Cross, Madingley Road, Cambridge CB3 0EL (GB).  <b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i>
<b>(54) Title:</b> HYDROPHOBICALLY MODIFIED POLYMERS FOR WATER CONTROL		
<b>(57) Abstract</b> <p>The use of a hydrophobically modified water soluble polymer is described capable of being chemically cross-linked so as to produce a stable gel for blocking a water-bearing formation from a hydrocarbon-producing well. The polymer is essentially linear having hydrophilic side groups located at random positions along its backbone.</p>		